

LT6650Q

φ26mm Waterproof Package
With Hood Type Full Color
Solid State Lamp

■ **Model No.**

LT6650Q	Yellow-green	GaP
	Red(Super-luminosity)	GaAlAs/GaAlAs
	Blue	SiC

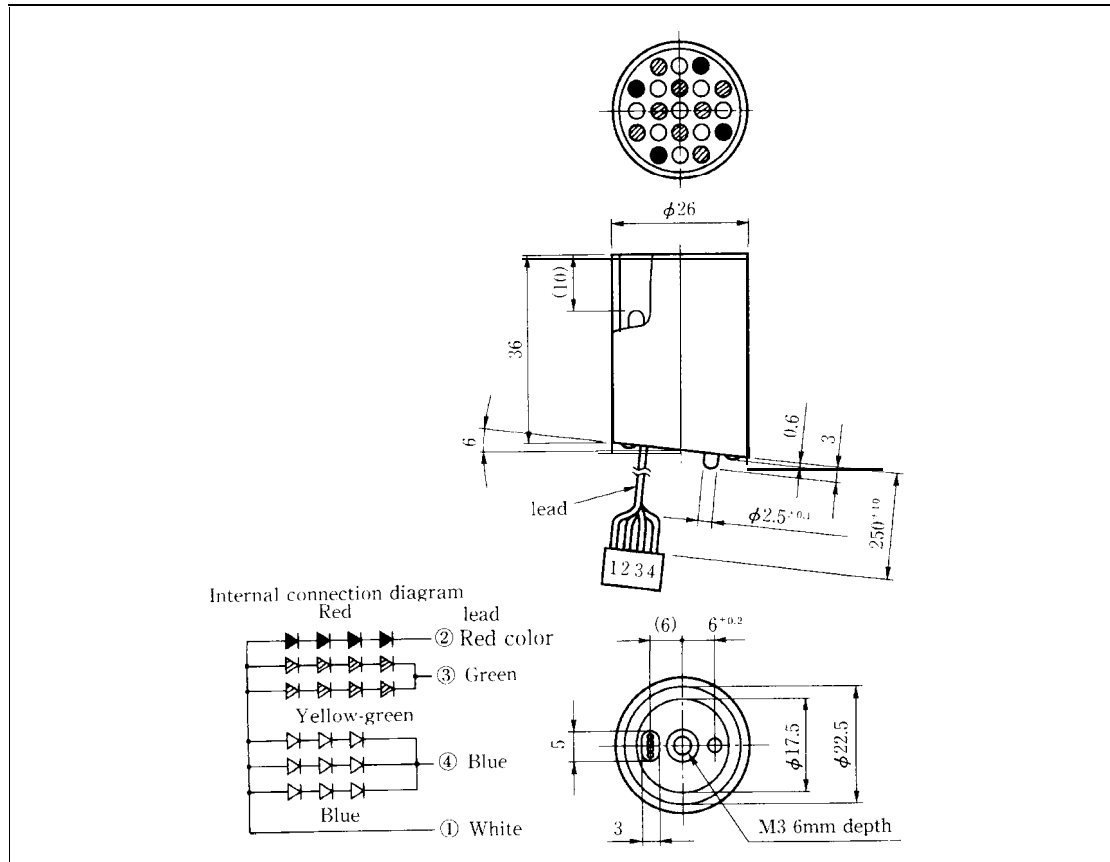
■ **Features**

1. φ26mm full color solid state lamps
2. Radiation color : Yellow-green, red, blue, and mixed color
3. No. of built-in φ3mm LED lamps
Yellow-green : 8pcs. Red : 4pcs. Blue : 9pcs.
4. Waterproof package with hood
5. Static drive
6. Wide viewing angle
7. Best suitable for outdoor and indoor information boards

3

■ **Outline Dimensions**

(Unit : mm)



S H A R P

LT6650Q

■ Absolute Maximum Ratings

(Ta = 25°C)

Parameter	Symbol	LT6650Q			Unit
		Yellow-green	Red	Blue	
Power dissipation	P	0.6	0.25	0.9	W
Continuous forward current	I _F	60	30	90	mA
Peak forward current	I _{FM}			—	mA
Derating factor	DC	—	—		nA/°C
	Pulse	—	—		nA/°C
Reverse voltage	V _R		12		V
Operating temperature	T _{opr}		-25 to +60		°C
Storage temperature	T _{stg}		-30 to +100		°C
Soldering temperature	T ₃₀₁				°C

LT6650Q(Yellow-green/Red/Blue)

Electro-optical Characteristics

(Ta = 25°C)

Parameter	Symbol	Radiation color	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V _F	Yellow-green	I _F = 40mA		8.5	9.2	V
		Red	I _F = 20mA	—	7.3	8.0	
		Blue	I _F = 60mA		9.2	10.0	
*1 Luminous intensity	I _V	Yellow-green	I _F = 40mA	500	700	—	mcd
		Red	I _F = 20mA	1000	2000	—	
		Blue	I _F = 60mA	15	30	—	
Peak emission wavelength	λ _P	Yellow-green	I _F = 40mA		565	—	nm
		Red	I _F = 20mA		660	—	
		Blue	I _F = 60mA		470	—	
Spectrum radiation bandwidth	Δλ	Yellow-green	I _F = 40mA	—	30	—	nm
		Red	I _F = 20mA		20	—	
		Blue	I _F = 60mA	—	70	—	
Reverse current	I _R	Yellow-green	V _R = 12V			100	μA
		Red	V _R = 12V			100	
		Blue	V _R = 12V			—	

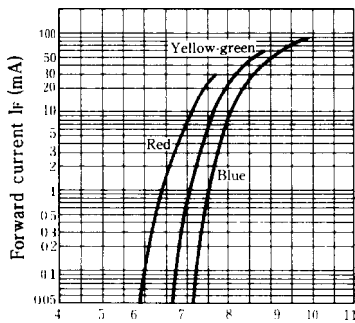
*1 Tolerance : ±20%



Characteristics Diagrams

Forward Current vs. Forward Voltage

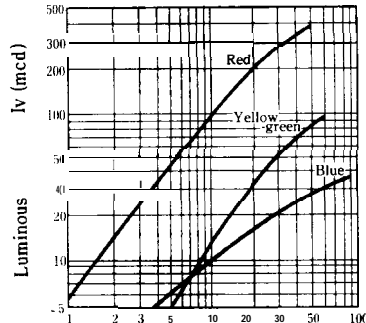
(Ta = 25°C)



Forward voltage V_F (V)

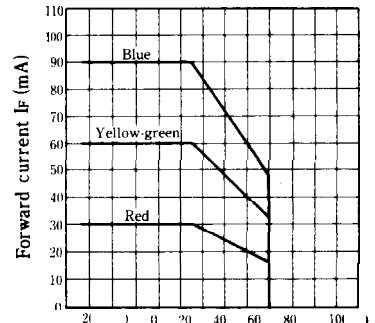
Luminous Intensity vs. Forward Current

(Ta = 25°C)



Forward current I_F (mA)

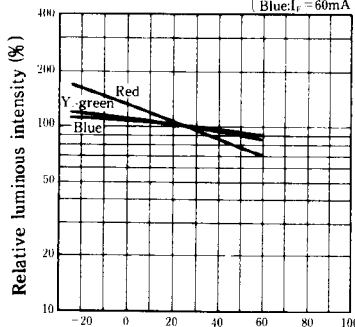
Forward Current Derating Curve



Ambient temperature Ta (°C)

Relative Luminous Intensity vs. Ambient Temperature

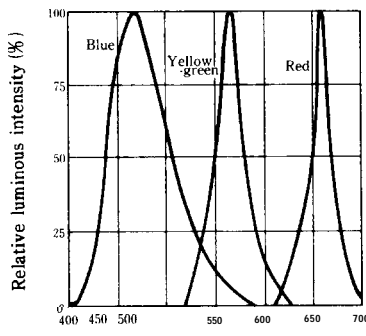
Y-green: I_F = 40mA
Red: I_F = 20mA
Blue: I_F = 60mA



Ambient temperature Ta (°C)

Spectrum Distribution

(T = 25°C)



Wavelength λ (nm)

Radiation Diagram

(Ta = 25°C)

